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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,000	08/07/2001	Peter Robert Foley	7940	1791

27752 7590 08/25/2004

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EXAMINER

KUMAR, PREETI

ART UNIT PAPER NUMBER

1751

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/891,000	FOLEY ET AL.	
	Examiner	Art Unit	
	Preeti Kumar	1751	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-37, 42-45 and 48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-37, 42-45 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Final Rejection after RCE***

1. Claims 30-37, 42-45 and 48 are pending. Claim 30 is amended
2. Claim 30 is independent.

***Response to Amendment***

3. Examiner finds support for the amendment in Table I example 5.

Examiner would like to point out that it is well within the skill on one of ordinary skill in the art to know that (N, N-Dimethylamino) ethyl methacrylate homopolymer as recited by the amended claim 30 has numerous synonyms namely,

- a. 2-dimethylaminoethylester
  - b. dimethylaminoethyl methacrylate
  - c. 2-(dimethylamino)ethyl methacrylate
  - d. ageflex FM-1
4. Please see the copy of the Safety (MSDS) data for N,N-dimethylaminoethyl methacrylate for establishing the facts known in the art and is not relied upon as prior art.
  5. The objection to the disclosure is withdrawn in light of applicants explanation on page 4 of the Remarks filed June 10, 2004.
  6. The rejection of claims 30-37, 42-45 and 48 under 35 U.S.C. 103(a) as obvious over Vinson et al. (US 5,990,065) is withdrawn in light of applicant's amendment to the claims.

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7. The rejection of claims 30-33, 36-37, 42-45 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (US 4,206,070) is withdrawn in light of applicant's amendment to the claims.

***Response to Arguments***

8. Applicant's arguments with respect to claim 30 have been considered but are moot in view of the new ground(s) of rejection.

***New Grounds of Rejection***

9. Claims 30-37, 42-45 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vinson et al. (US 5,990,065) in view of Vermeer (US 5,880,076).

Vinson et al. teach a liquid dishwashing detergent composition comprising from 0.000 1% to 2% by weight, of an amylase enzyme; and from about 0.5% by weight, of a suds booster; wherein said composition has a pH greater than 8. See col.2, ln.23-40 and col.26 example I formulation E.

Specifically regarding claims 31-35, Vinson et al. teach a liquid dishwashing detergent composition comprising an amylase enzyme from about 0.0001% to about 2% by weight, of said amylase enzyme. See col.16, ln.15-17.

Specifically regarding claims 36 and 37, Vinson et al. teach the utility of anionic, nonionic, and cationic surfactants. An effective amount of a surfactant typically is in the range of from about 0.5% to about 90% by weight. See col.6, ln.33-37.

Specifically regarding claim 42, Vinson et al. teach that detergent compositions may further comprise enzymes which provide cleaning

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performance benefits such as cellulases, hemicellulases, peroxidases, proteases, gluco-amylases, lipases, cutinases, pectinases, xylanases, reductases, oxidases, phenoloxidases, lipoxygenases, ligninases, pullulanases, tannases, pentosanases, malanases, P-glucanases, and arabinosidases. See col.13,ln. 45-60.

Specifically regarding claims 43-45, Vinson et al. teach the utility of suds boosters, such as betaines and sulfobetaines ("sultaines"). See col.11, ln.55-60. Specifically regarding the polymeric suds stabilizer, Vinson et al. teach the utility of polyethylene, polypropylene, and polybutylene oxide condensates of alkyl phenols. See col.8, ln.46-47.

The examiner notes that Vinson et al. are silent as to the range of suds booster that may be incorporated into the composition, however, in example I formulation E, Vinson et al. teach the use of a suds booster in an amount encompassed by the range recited by the instant claims. Vinson et al. illustrate in example I formulation E, a liquid dishwashing detergent composition comprising: an amylase enzyme; a linear alkyl benzene sulfonate surfactant, a diamine, and a betaine suds booster in a proportion encompassed by the material limitations of instant claims. See col.26. ex.1.formulation E.

In example VIII in col.47-48, Vinson et al. illustrate a liquid detergent composition not comprising diamines.

Vinson et al. do not specifically teach the claimed recitation to a (N, N-Dimethylamino) ethyl methacrylate homopolymer polymeric suds stabilizer as recited by the newly amended claim 30.

Vermeer teach various detergent types, including light-duty liquids (dishwashing liquids) and machine dishwashing detergents, comprising copolymers of dimethylaminoethyl-methacrylate and acrylamide, copolymers of dimethyldiallylammonium chloride and acrylamide and the like at levels of from about 0% to about 5%, preferably from about 0% to about 4%, even more preferably from about 0% to about 3% by weight of the composition. See col.20 ln.25-35 and col.36, ln.49-65. is relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, to arrive at a liquid dishwashing detergent comprising a (N, N-Dimethylamino) ethyl methacrylate homopolymer polymeric suds stabilizer as recited by the instant claims because Vermeer suggests the utility of copolymers of dimethylaminoethyl-methacrylate and acrylamide in dishwashing liquids, and furthermore Vinson et al. suggests a liquid dishwashing detergent composition at a pH greater than 8, not comprising a diamine and further comprising an amylase and a polymeric suds stabilizer in general in the same proportions as recited by the instant claims.

10. Claims 30-33, 36-37, 42-45 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (US 4,206,070) in view of in view of Vermeer (US 5,880,076).

Jones teaches a liquid detergent composition not comprising diamines and further comprising enzymes and suds boosters at a pH of 8. Jones illustrates in example II formulations A-E, a liquid dishwashing detergent composition not comprising a diamine. See col.9. Specifically regarding pH,

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Jones teaches detergent compositions preferably include builder salts, especially alkaline, poly-valent anionic builder salts to maintain the pH of the solution in the range from about 7 to about 12. See col.5, ln.20-25.

Regarding the enzyme of claim 30-33 and 42, Jones teaches the utility of various detergency enzymes well known in the art for their ability to degrade and aid in the removal of various soils and stains. Detergency enzymes are commonly used at concentrations of from about 0.1% to about 1.0% by weight of such compositions. Typical enzymes include the various proteases, lipases, amylases, and mixtures thereof, which are designed to remove a variety of soils and stains. See col.7, ln.5-15 and claim 1.

Specifically regarding claims 30, 36-37 and 43-45, Jones teaches the utility of various suds stabilizing surfactants typically in the range of from about 2% to about 95% by weight. See col.3-6, and claim 1.

Jones does not specifically teach the claimed recitation to a liquid dishwashing detergent comprising a (N, N-Dimethylamino) ethyl methacrylate homopolymer polymeric suds stabilizer as recited by the newly amended claim 30.

Vermeer teach various detergent types, including light-duty liquids (dishwashing liquids) and machine dishwashing detergents, comprising copolymers of dimethylaminoethyl-methacrylate and acrylamide, copolymers of dimethyldiallylammonium chloride and acrylamide and the like at levels of from about 0% to about 5%, preferably from about 0% to about 4%, even more preferably from about 0% to about 3% by weight of the composition. See col.20 ln.25-35 and col.36, ln.49-65. is relied upon as set forth above.

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It would have been obvious to one of ordinary skill in the art, to arrive at a liquid dishwashing detergent comprising a (N, N-Dimethylamino) ethyl methacrylate homopolymer polymeric suds stabilizer as recited by the instant claims because Vermeer suggests the utility of copolymers of dimethylaminoethyl-methacrylate and acrylamide in dishwashing liquids, and furthermore Jones suggests a liquid dishwashing detergent composition at a pH greater than 8, not comprising a diamine and further comprising an amylase and a polymeric suds stabilizer in general in the same proportions as recited by the instant claims.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

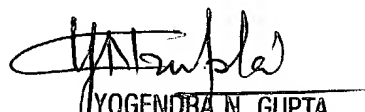


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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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